DAIKIN

technical data

air conditioning systems

FUQ-BU

4-way Blow Ceiling Suspended Cassette

OPTIMISED DESIGN R-410A

Split Sky Air

Split - Sky Air

ISO14001 assures an effective environmental management system in order to help protect human health and the environment from the potential impact of our activities, products and services and to assist in maintaining and improving the quality of the environment

Daikin units comply with the European regulations that guarantee the safety of the product.

Daikin Europe N.V. is approved by LRQA for its Quality Management System in accordance with the ISO9001 standard. ISO9001 pertains to quality assurance regarding design, development, manufacturing as well as to services related to the product.

Daikin Europe N.V. participates in the Eurovent Certification Programme for Air Conditioners (AC), Liquid Chilling Packages (LCP) and Fan Coil Units (FC); the certified data of certified models are listed in the Eurovent Directory.

Specifications are subject to change without prior notice.

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EEDE05-1/3 • 05/2005
Prepared in Belgium by Goekint Graphics

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FUQ-BU

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For capacity tables, please refer to part II: outdoor units

OPTIMISED DESIGN R-410A

1 Features

- Ideal for refurbishment
- Leaves maximum floor and wall space for furniture, decoration and fittings
- Air can be discharged in any of four directions
- Air flow distribution for ceiling heights up to 3.5m without loss of capacity.
- Possibility to shut off 1 or 2 flaps for easy installation in corners
- Extremely quiet in operation both indoors and outdoors
- The air filter, drain pan and heat exchanger fin are mildew proof and anti-bacterial treated
- Drain-up pump with increased lift of 500mm
- Flexible installation: can be installed in the middle of a room or in a corner
- For equal distribution in larger rooms, up to 3 indoor units can be connected to 1 outdoor
- These indoor units can also be connected to the Sky Air super inverter RZQ-B.
- Daikin remote controls give you easy control at your fingertips.
- The wired remote control provides you with a schedule timer, enabling to program the air conditioning daily or weekly.
- The optional remote ON/OFF enables you to start/stop the air conditioning from a mobile phone via a telephone remote control (field supply).
- The optional forced OFF enables you to switch off the unit automatically. E.g. when a window is opened, the unit switches off.
- The 'home leave' operation button prevents large temperature differences by continuously operating at a minimum (heating mode) or maximum (cooling mode) preset level while you're out or sleeping. It also allows the indoor temperature to return quickly to your favourite comfort level.

Optional

Optional

Optional

Heat pump

2 steps

Twin/triple

2 Specifications

NOMINAL CAPACITY and NOMINAL INPUT						
For indoor units only:						
INDOOR UNITS				**FUQ71BUV1B**	**FUQ100BUV1B**	**FUQ125BUV1B**
NOMINAL INPUT	Cooling		kW	0.180	0.289	0.289
	Heating		kW	0.160	0.269	0.269

For combination indoor + outdoor units (air cooled):						
INDOOR UNITS				**FUQ71BUV1B**	**FUQ100BUV1B**	**FUQ125BUV1B**
OUTDOOR UNITS				**RR71B7V3B/RR71B7W1B**	**RR100B7V3B/RR100B7W1B**	**RR125B7W1B**
NOMINAL CAPACITY (3)	Cooling (1)	nominal	kW	7.1	10	12.2
NOMINAL INPUT	Cooling	nominal	kW	2.70/2.65	3.83/3.78	4.57
EER				2.63/2.68	2.61/2.65	2.67
ENERGY LABEL	Cooling			D/D	D/D	D
ANNUAL ENERGY CONSUMPTION	Cooling		kWh	1,350/1,325	1,915/1,890	2,285
INDOOR UNITS				**FUQ71BUV1B**	**FUQ100BUV1B**	**FUQ125BUV1B**
OUTDOOR UNITS				**RQ71B7V3B/RQ71B7W1B**	**RQ100B7V3B/RQ100B7W1B**	**RQ125B7W1B**
NOMINAL CAPACITY (3)	Cooling (1)	nominal	kW	7.1	10	12.2
	Heating (2)	nominal	kW	8	11.2	14.5
NOMINAL INPUT	Cooling	nominal	kW	2.70/2.65	3.83/3.78	4.57
	Heating	nominal	kW	2.53/2.44	3.58/3.54	4.88
EER				2.63/2.68	2.61/2.65	2.67
COP				3.16/3.28	3.13/3.16	2.97
ENERGY LABEL	Cooling			D/D	D/D	D
	Heating			D/C	D/D	D
ANNUAL ENERGY CONSUMPTION	Cooling		kWh	1,350/1,325	1,790/1,890	2,285
INDOOR UNITS				**FUQ71BUV1B**	**FUQ100BUV1B**	**FUQ125BUV1B**
OUTDOOR UNITS				**RZQ71B8V3B**	**RZQ100B8V3B/B7W1B**	**RZQ125B8V3B/B7W1B**
NOMINAL CAPACITY (3)	Cooling (1)	min.~nom.~max.	kW	3.20~7.10~8.02	5.00~10.00~11.20	5.75~12.50~14.00
	Heating (2)	min.~nom.~max.	kW	3.52~8.00~9.04	5.15~11.20~12.77	6.02~14.00~16.24
NOMINAL INPUT	Cooling	nominal	kW	2.26	3.05	4.25
	Heating	nominal	kW	2.71	3.29	4.76
EER				3.14	3.28	2.94
COP				2.95	3.40	2.94
ENERGY LABEL	Cooling			B	A	C
	Heating			D	C	D
ANNUAL ENERGY CONSUMPTION	Cooling		kWh	1,131	1,525	2,126

2 Specifications

TECHNICAL SPECIFICATIONS

INDOOR UNITS				FUQ71BUV1B	FUQ100BUV1B	FUQ125BUV1B
DIMENSIONS	Unit	H	mm	165	230	230
		W	mm	895	895	895
		D	mm	895	895	895
WEIGHT	Unit		kg	25	31	31
MATERIAL	Unit			Resin		
COLOUR	Unit			White		
SOUND LEVEL	Sound pressure (cooling/heating) (3)	high	dB(A)	40/40	43/43	44/44
		low	dB(A)	35/35	38/38	39/39
	Sound power (cooling/heating) (4)	high	dB(A)	56/56	59/59	60/60
		low	dB(A)	51/51	54/54	55/55
FAN	Air flow rate (cooling/heating)	high	m^3/min	19/19	29/29	32/32
		low	m^3/min	14/14	21/21	23/23
	Speed	steps		2 steps		
	Type			Turbo fan		
	Qty x motor output		W	1 x 45	1 x 90	1 x 90
HEAT EXCHANGER	Type			Cross fin coil (Multi louver fins and N-HiX tubes)		
	Rows x stages x fin pitch		mm	3 x 6 x 1.5	3 x 8 x 1.5	3 x 8 x 1.5
	Face area		m^2	0.265	0.353	0.353
AIR FILTER				Resin net (with mold resistant)		
PIPING CONNECTIONS		liquid	mm	Φ9.5 (flare)		
		gas	mm	Φ15.9 (flare)		
		drain	mm	I.D. Φ20		
		drain	mm	O.D. Φ26		
INSULATION MATERIAL	Heat insulation			Heat resistant foamed polyethylene, regular foamed polyethylene		

For outdoor units	Pair application	See chapters RR-B7, RQ-B7, RZQ-B

2 Specifications

ELECTRICAL SPECIFICATIONS						
For indoor units only:				**FUQ71BUV1B**	**FUQ100BUV1B**	**FUQ125BUV1B**
CURRENT	Nominal running current	cooling	A	See chapter RR-B7, RQ-B7, RZQ-B		
		heating	A			
	Maximum running current	cooling	A			
		heating	A			

For combination indoor + outdoor units (air cooled):				**FUQ71BUV1B**	**FUQ100BUV1B**	**FUQ125BUV1B**
				RR71B7V3B/RR71B7W1B	**RR100B7V3B/RR100B7W1B**	**RR125B7W1B**
CURRENT	Nominal running current	cooling	A	See chapter RR-B7		
	Maximum running current	cooling	A			
	Starting running current	cooling	A			

For combination indoor + outdoor units (air cooled):				**FUQ71BUV1B**	**FUQ100BUV1B**	**FUQ125BUV1B**
				RQ71B7V3B/RQ71B7W1B	**RQ100B7V3B/RQ100B7W1B**	**RQ125B7W1B**
CURRENT	Nominal running current	cooling	A	See chapter RQ-B7		
	Maximum running current	cooling	A			
	Starting running current	cooling	A			

For combination indoor units + outdoor units:				**FUQ71BUV1B**	**FUQ100BUV1B**	**FUQ125BUV1B**
				RZQ71B7V3B	**RZQ100B7V3B**	**RZQ125B7V3B**
CURRENT	Nominal running current	cooling	A	See chapter RZQ-B		
	Maximum running current	cooling	A			
	Starting current	cooling	A			

For indoor units only:			**FUQ71BUV1B**	**FUQ100BUV1B**	**FUQ125BUV1B**
POWER SUPPLY			V1	V1	V1
NOMINAL DISTRIBUTION SYSTEM VOLTAGE	Phase		1~	1~	1~
	Frequency	Hz	50	50	50
	Voltage	V	220-240	220-240	220-240

NOTES

1 Nominal cooling capacities are based on: indoor temperature 27°CDB/19°CWB * outdoor temperature 35°CDB * refrigerant piping length: 7.5m * level difference: 0m.

2 Nominal heating capacities are based on: indoor temperature: 20°CDB/12°CWB * outdoor temperature: 7°CDB/6°CWB * refrigerant piping length: 7.5m * level difference 0m.

3 Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat.

4 The sound pressure level is measured via a microphone at 1m distance from the unit. It is a relative value, depending on the distance and acoustic environment. For measuring conditions: please refer to item 6 of this chapter.

5 The sound power level is an absolute value indicating the "power" which a sound source generates.

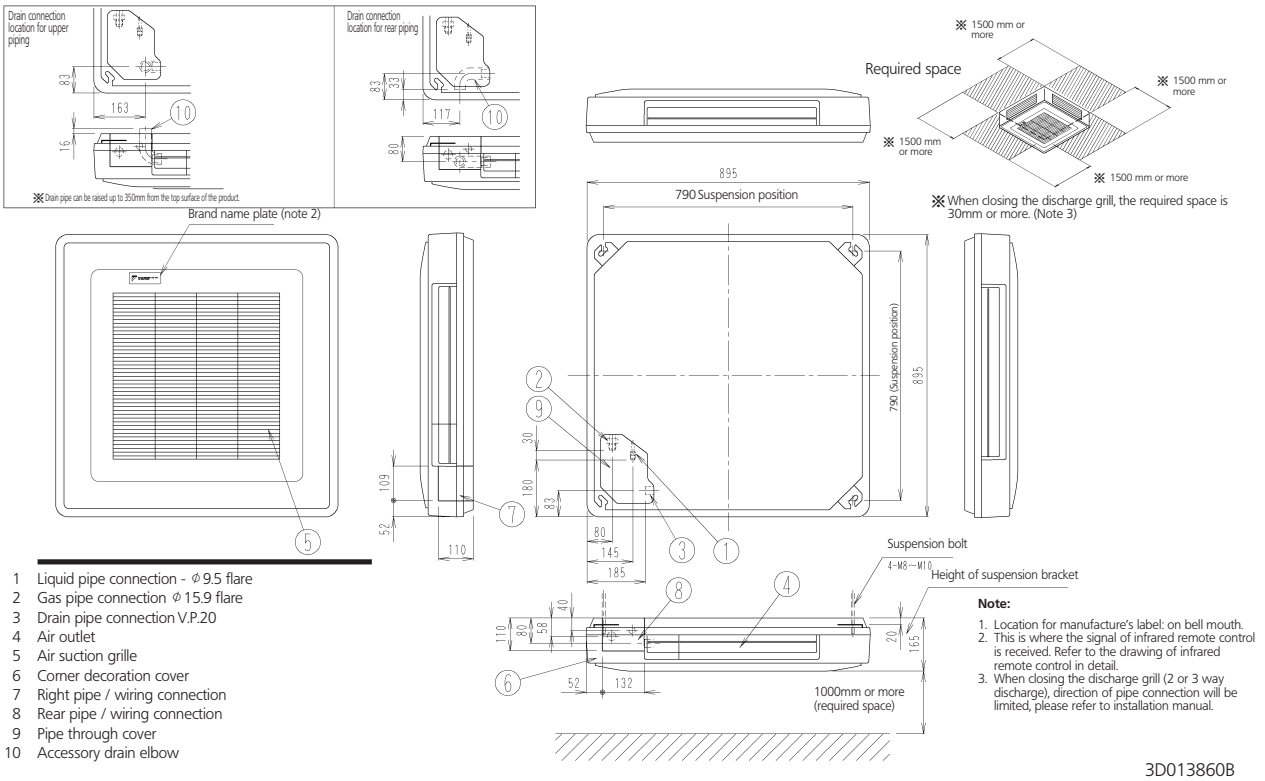
6 Energy label: scale from A (most efficient) to G (less efficient).

7 Annual energy consumption: based on average use of 500 running hours per year at full load (= nominal conditions)

3 Dimensional drawings

unit (mm)

FUQ71BUV1B


Drain connection location for upper piping
Drain connection location for rear piping
※ Drain pipe can be raised up to 350mm from the top surface of the product.
※ 1500 mm or more
Required space
※ 1500 mm or more
※ 1500 mm or more
※ 1500 mm or more
※When closing the discharge grill, the required space is 30mm or more. (Note 3)
Brand name plate (note 2)
895
790 Suspension position
790 (Suspension position)
895
Suspension bolt
4-M8~M10
Height of suspension bracket
1000mm or more (required space)

1 Liquid pipe connection - ⌀9.5 flare
2 Gas pipe connection ⌀15.9 flare
3 Drain pipe connection V.P.20
4 Air outlet
5 Air suction grille
6 Corner decoration cover
7 Right pipe / wiring connection
8 Rear pipe / wiring connection
9 Pipe through cover
10 Accessory drain elbow

Note:

1. Location for manufacture's label: on bell mouth.
2. This is where the signal of infrared remote control is received. Refer to the drawing of infrared remote control in detail.
3. When closing the discharge grill (2 or 3 way discharge), direction of pipe connection will be limited, please refer to installation manual.

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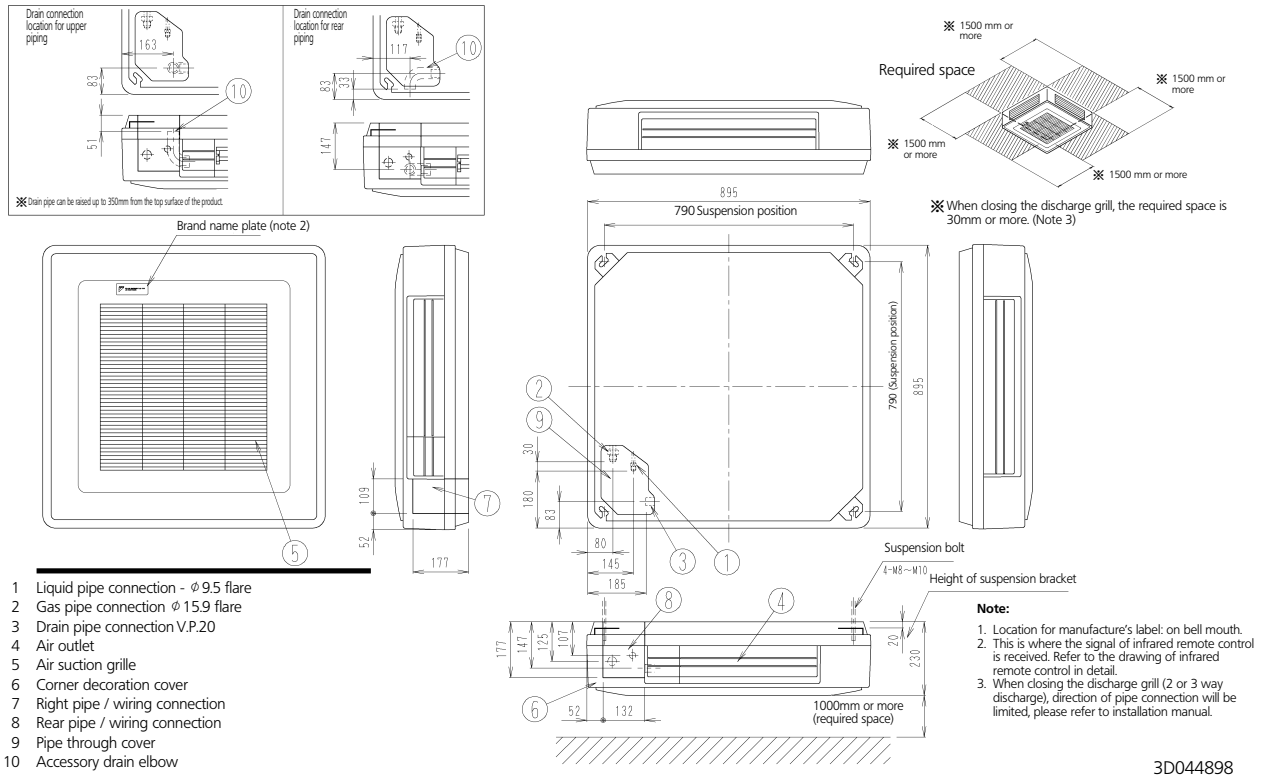
unit (mm)

FUQ100-125BUV1B


Drain connection location for upper piping
Drain connection location for rear piping
※ Drain pipe can be raised up to 350mm from the top surface of the product.
※ 1500 mm or more
Required space
※ 1500 mm or more
※ 1500 mm or more
※ 1500 mm or more
※When closing the discharge grill, the required space is 30mm or more. (Note 3)
Brand name plate (note 2)
895
790 Suspension position
790 (Suspension position)
895
Suspension bolt
4-M8~M10
Height of suspension bracket
1000mm or more (required space)

1 Liquid pipe connection - ⌀9.5 flare
2 Gas pipe connection ⌀15.9 flare
3 Drain pipe connection V.P.20
4 Air outlet
5 Air suction grille
6 Corner decoration cover
7 Right pipe / wiring connection
8 Rear pipe / wiring connection
9 Pipe through cover
10 Accessory drain elbow

Note:

1. Location for manufacture's label: on bell mouth.
2. This is where the signal of infrared remote control is received. Refer to the drawing of infrared remote control in detail.
3. When closing the discharge grill (2 or 3 way discharge), direction of pipe connection will be limited, please refer to installation manual.

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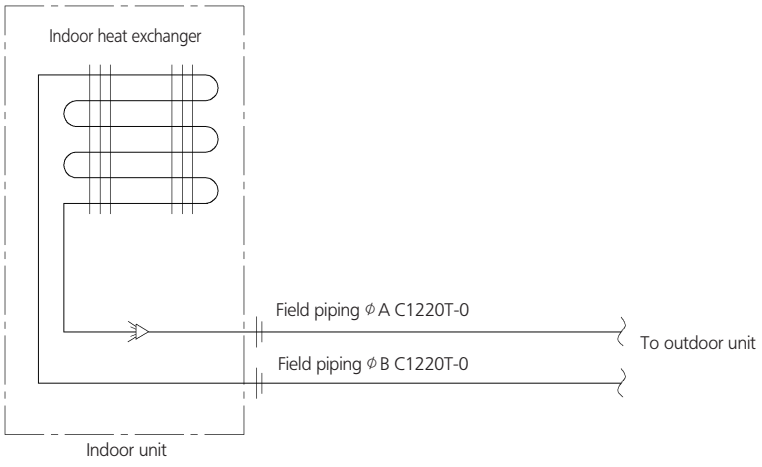
4 Piping diagrams

FUQ71-100-125BUV1B



Refrigerant pipe connection port diameters

Model	A	B
FUQ71, 100, 125BUV1B	∅9.5	∅15.9

Check valve — Flare connection — Screw connection — Flange connection — Pinched pipe — Spinned pipe

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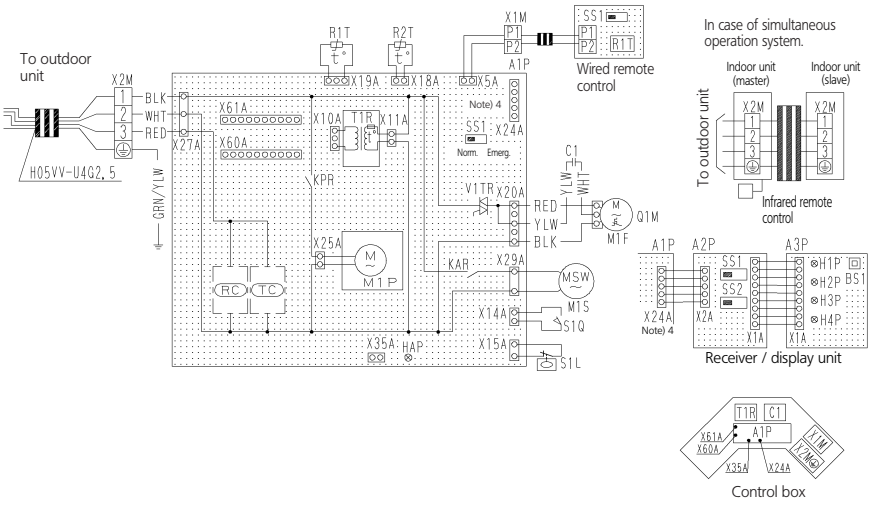
5 Wiring diagrams

5

FUQ71~125BUV1B

Notes

1. ▭▭ : Terminal ▭▭ : Connector
   ⏚ : Protective earth (screw)
2. ⫼: Field wiring
3. In case using central remote control, connect it to the unit in accordance with the attached instruction manual.
4. X24A is connected when the infrared remote control kit is being used.
5. Remote control model varies according to the combination system, confirm technical materials and catalogs, etc. before connecting.
6. Symbols show as follows Red:red, Blk:black, Ylw:yellow, Org:orange, Gry:gray, Prp:purple, Blu:blue
7. Confirm the method of setting the selector switch (SS1, SS2) by installation manual and engeneering materials, etc.



A1P	Printed circuit board	S1L	Float switch (M1A)	Receiver / display unit (attached to infrared remote controller)		Connector for optional parts	
C1R	Capacitor (M1F)	S1Q	Limit switch (swing flap)	A2P	Printed circuit board	X35A	Connector (group control adapter)
HAP	Light emitting diode (service monitor green)	SS1	Selector switch (emergency)	A3P	Printed circuit board	X60A	Connector (interface adapter for sky air series)
KAR	Magnetic relay (M1S)	T1R	Transformer (220-240V/22V)	BS1	Push button (on/off)	X61A	
KPR	Magnetic relay ((M1P)	V1TR	Phase control circuit	H1P	Light emitting diode (service monitor red)		
M1F	Motor (indoor fan)	X1M	Terminal strip	H2P	Light emitting diode (service monitor green)		
M1P	Motor (drain pump)	X2M	Terminal strip	H3P	Light emitting diode (service monitor red)		
M1S	Motor (swing flap)	(RC)	Signal receiver circuit	H4P	Light emitting diode (service monitor orange)		
Q1M	Thermo switch (M1F embedded)	(TC)	Signal transmission circuit	SS1	Selector switch (main/sub)		
R1T	Thermistor (air)	Wired remote control		SS2	Selector switch (wireless address set)		
R2T	Thermistor (coil)	R1T	Thermistor (air)				
		SS1	Selector switch (main/sub)				

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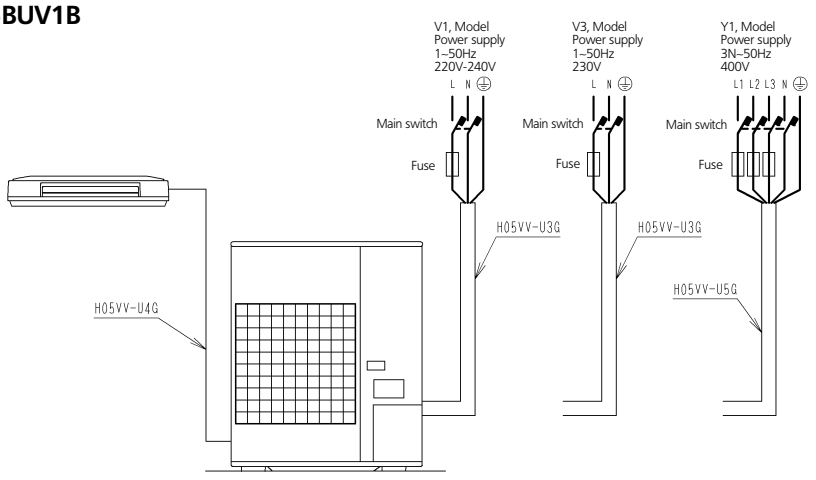
FUQ71~125BUV1B



NOTES

1. ——— Line voltage wiring
   ——— Control circuit wiring
2. All wiring, components and materials to be produced on the site must comply with the applicable local and national codes.
3. Use copper conductors only.
4. See wiring diagrams for details.
5. Install fuse and mainswitch for safety.
6. All field wiring and components must be provided by a licensed electrician.
7. The unit shall be grounded in compilance with the applicable local and national codes.
8. Wiring shown are general points-of-connection guides only and are not intended for or to include all details for a specific installation.
9. Never share a common power supply with other equipment.

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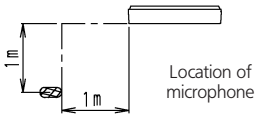
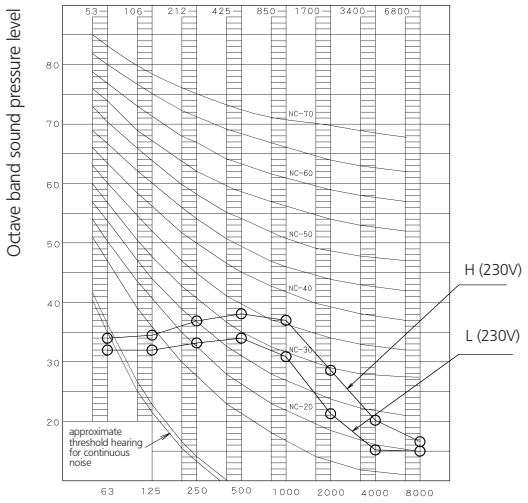
6 Sound level

6-1 Sound level data

Model	Sound pressure level 230V 50Hz			Sound power level	
	Cooling (H/L)	Heating (H/L)	Measuring location	Cooling (H/L)	Heating (H/L)
FUQ71BUV1B	40/35	40/35		56/51	56/51
FUQ100BUV1B	43/38	43/38		59/54	59/54
FUQ125BUV1B	44/39	44/39		60/55	60/55

6-2 Sound pressure spectrum

FUQ71BUV1B


Octave band sound pressure level
53 106 212 425 850 1700 3400 6800
80 70 60 50 40 30 20
NC-70 NC-60 NC-50 NC-40 NC-30 NC-20
H (230V)
L (230V)
approximate threshold hearing for continuous noise
63 125 250 500 1000 2000 4000 8000
Octave band center frequency (Hz)

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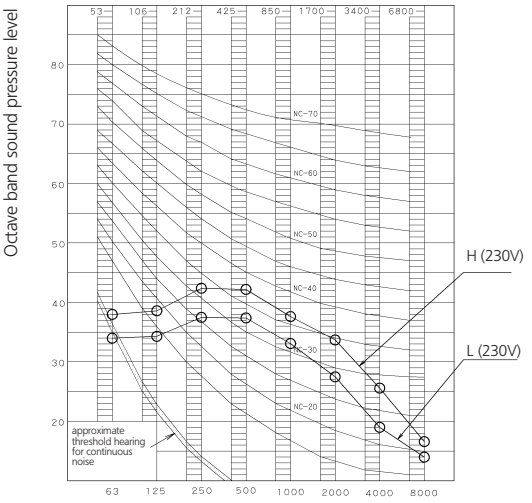
FUQ100BUV1B


Octave band sound pressure level
53 106 212 425 850 1700 3400 6800
80 70 60 50 40 30 20
NC-70 NC-60 NC-50 NC-40 NC-30 NC-20
H (230V)
L (230V)
approximate threshold hearing for continuous noise
63 125 250 500 1000 2000 4000 8000
Octave band center frequency (Hz)

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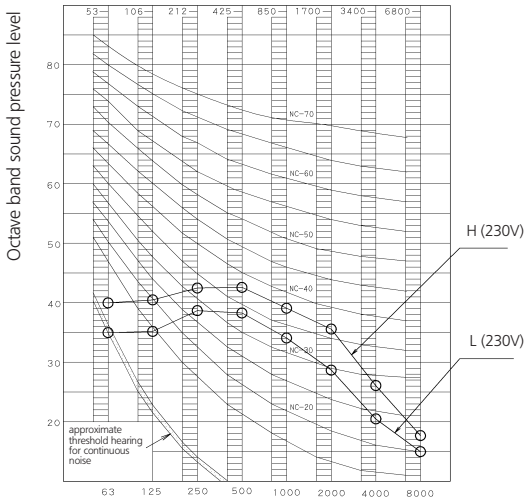
FUQ125BUV1B


Octave band sound pressure level
53 106 212 425 850 1700 3400 6800
80 70 60 50 40 30 20
NC-70 NC-60 NC-50 NC-40 NC-30 NC-20
H (230V)
L (230V)
approximate threshold hearing for continuous noise
63 125 250 500 1000 2000 4000 8000
Octave band center frequency (Hz)

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NOTES

1 Sound pressure levels are measured in an anechoic room.

2 Operation sound levels are valid at nominal operation condition

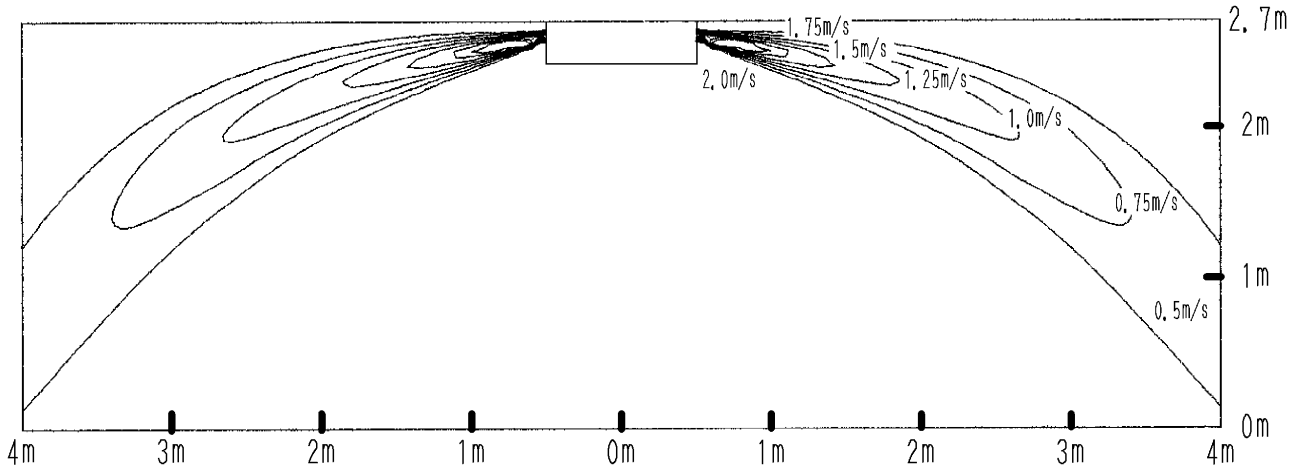
3 Operation sound level differs with operation and ambient conditions.

7 Air flow patterns

FUQ71BUV1B

Cooling - air velocity distribution

4-way discharge air flow direction: horizontal



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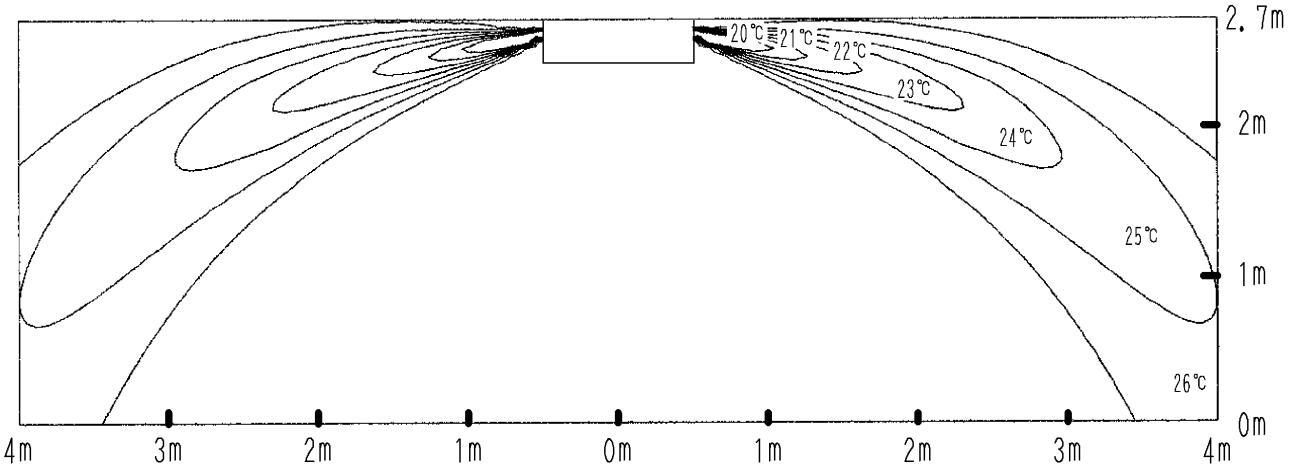
Cooling - air temperature distribution

4-way discharge air flow direction: horizontal



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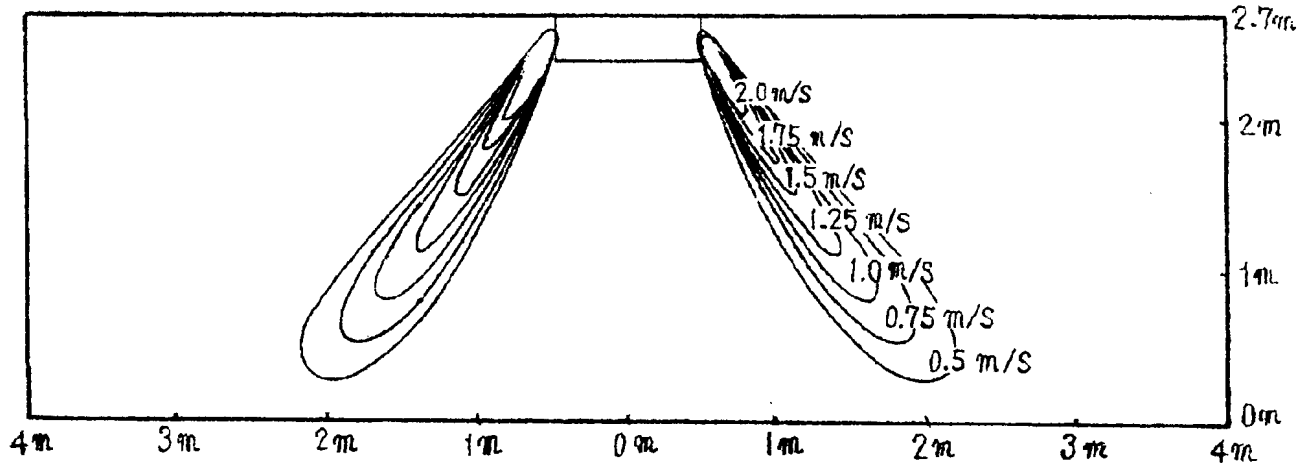
7 Air flow patterns

FUQ71BUV1B

Heating - air velocity distribution

4-way discharge, air flow direction: down



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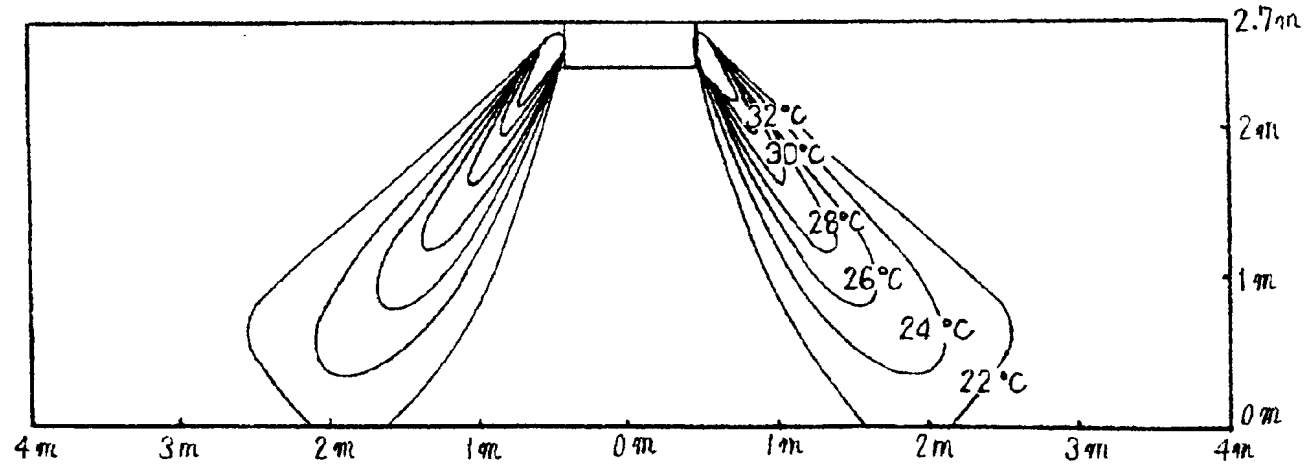
Heating - air temperature distribution

4-way discharge, air flow direction: down



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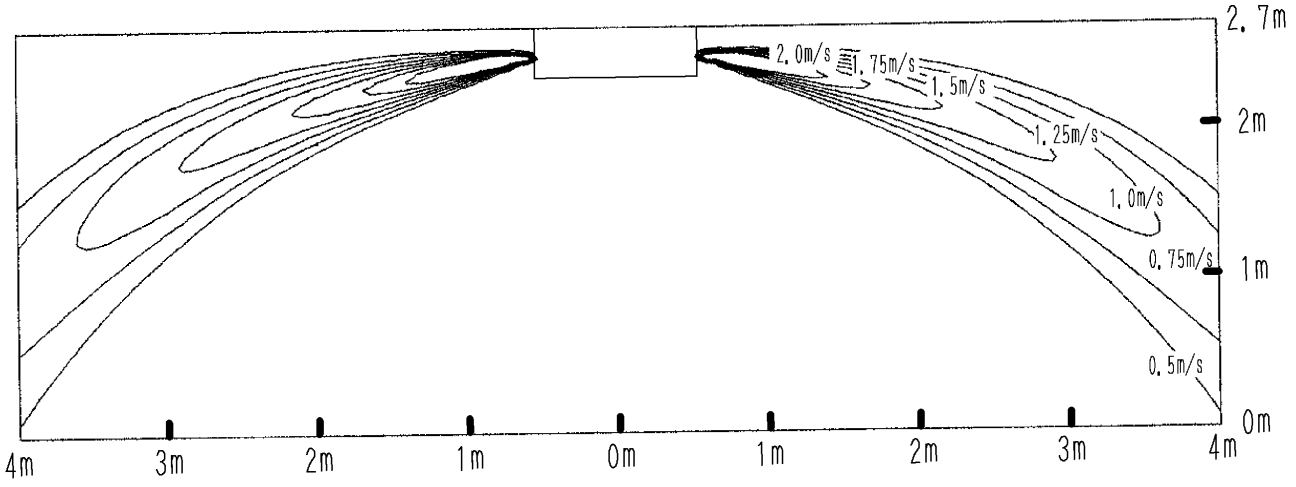
7 Air flow patterns

7

FUQ100BUV1B

Cooling - air velocity distribution

4-way discharge air flow direction: horizontal



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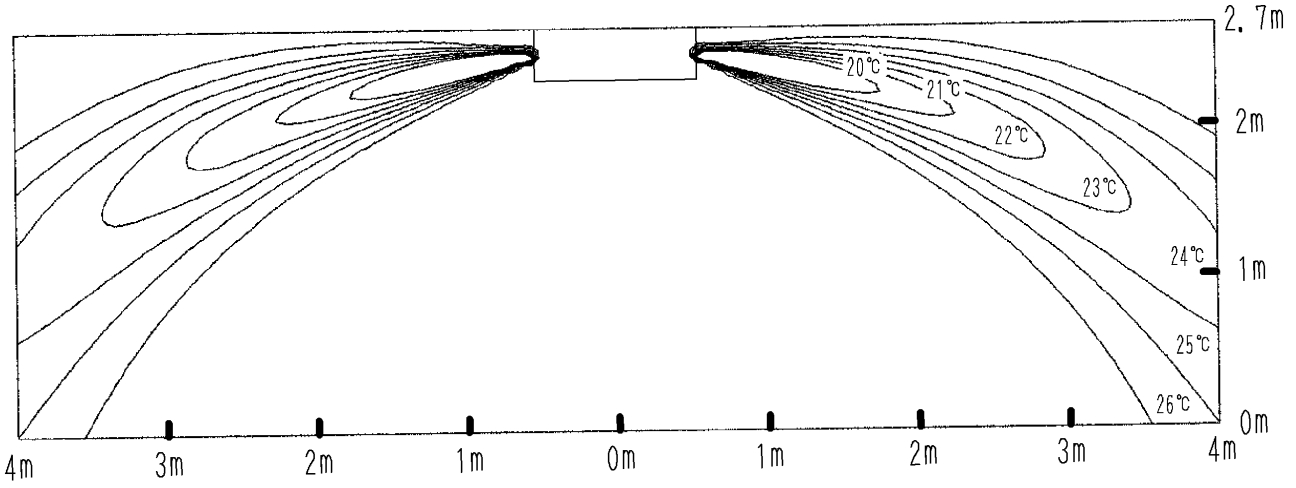
Cooling - air temperature distribution

4-way discharge air flow direction: horizontal



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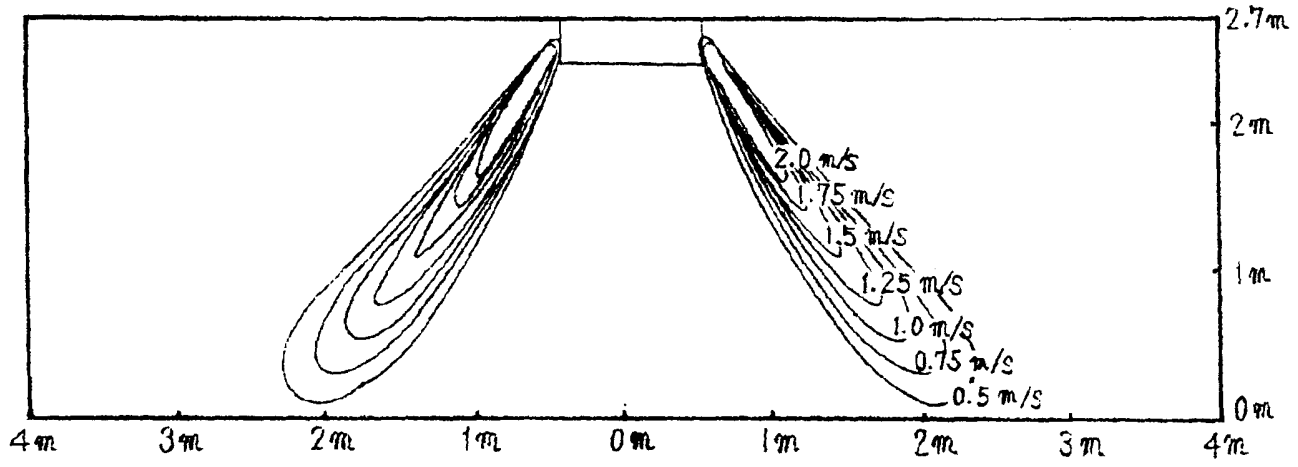
7 Air flow patterns

FUQ100BUV1B

Heating - air velocity distribution

4-way discharge, air flow direction: down



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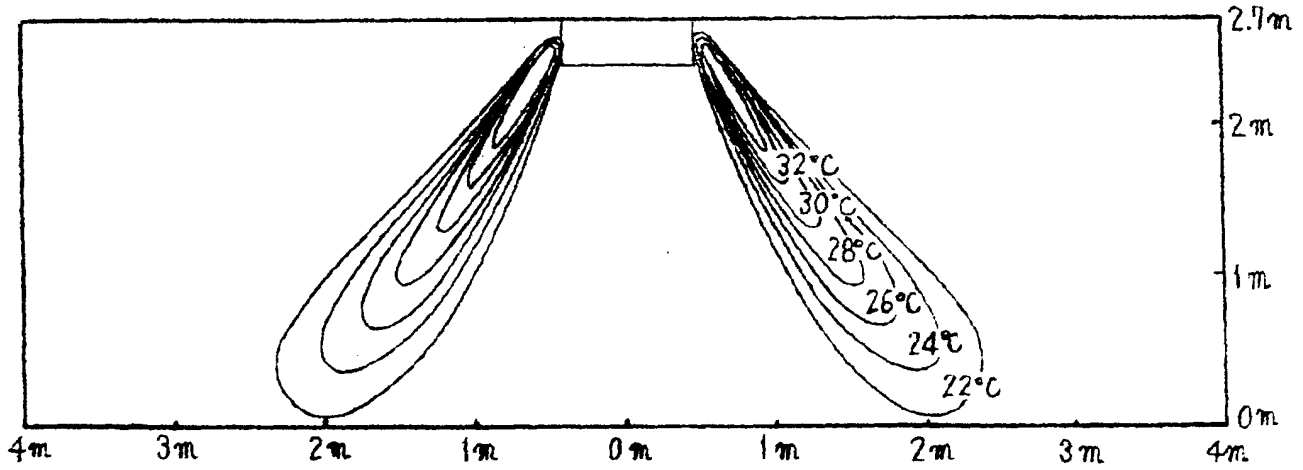
Heating - air temperature distribution

4-way discharge, air flow direction: down



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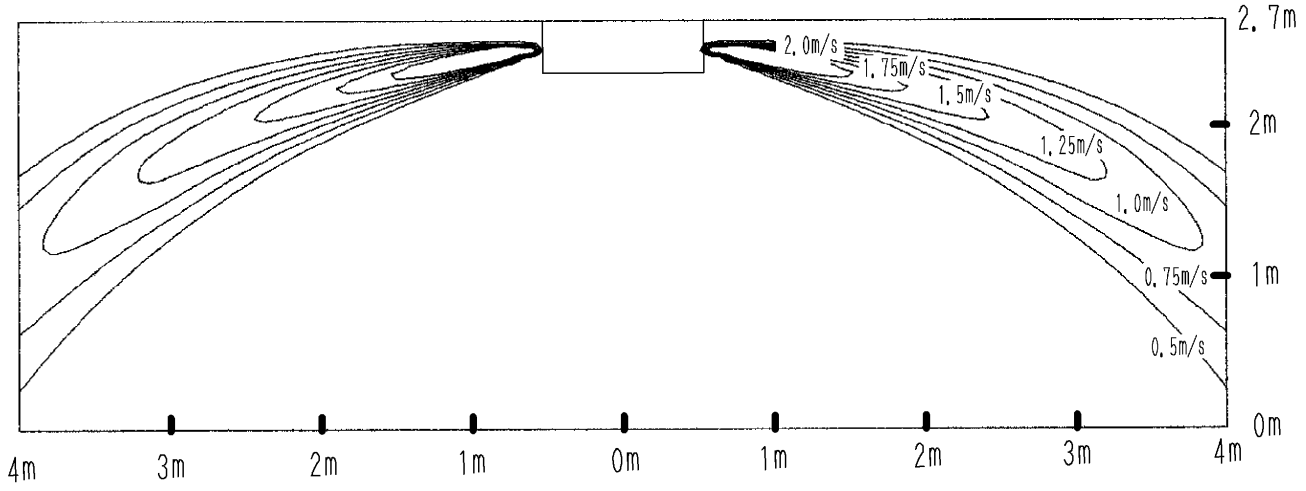
7 Air flow patterns

7

FUQ125BUV1B

Cooling - air velocity distribution

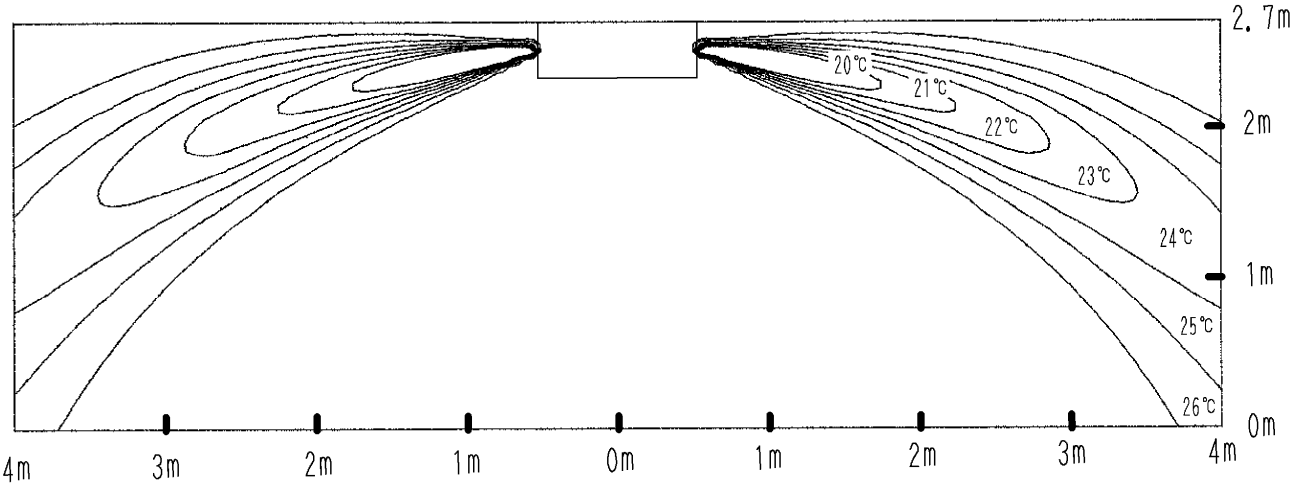
4-way discharge air flow direction: horizontal



FUQ125BUV1B

Cooling - air temperature distribution

4-way discharge air flow direction: horizontal



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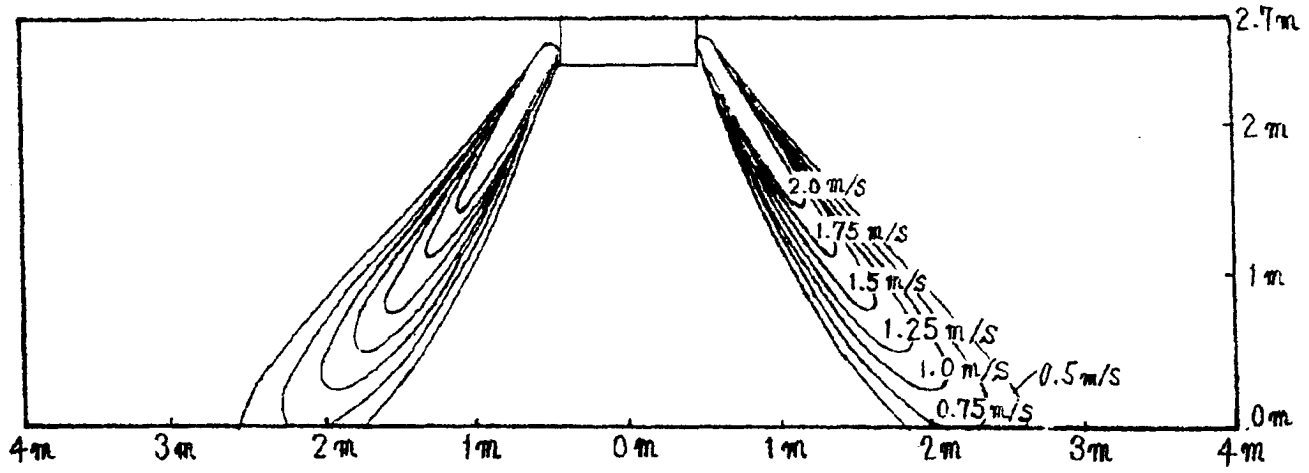
7 Air flow patterns

FUQ125BUV1B

Heating - air velocity distribution

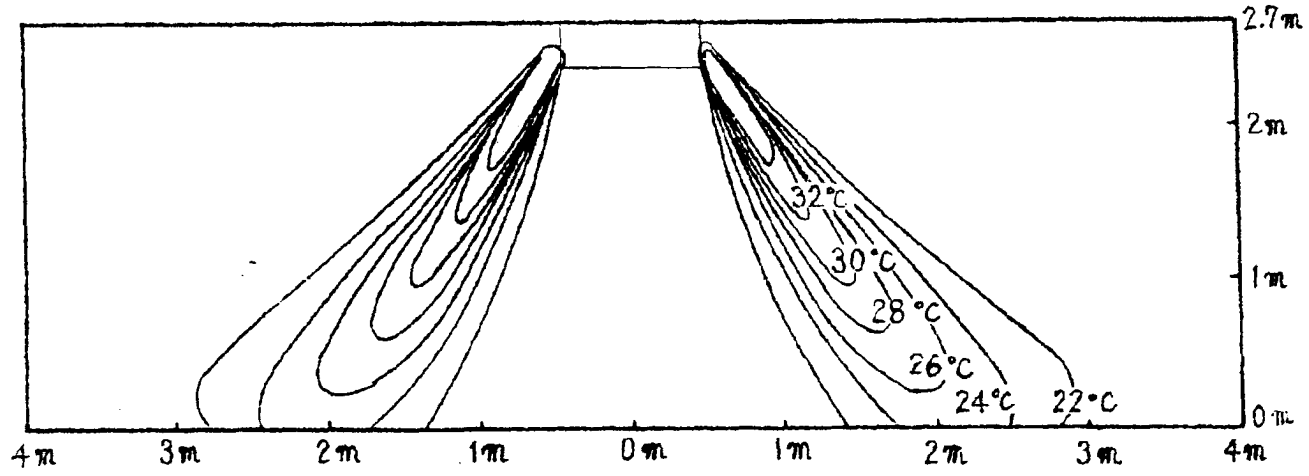
4-way discharge, air flow direction: down



FUQ125BUV1B

Heating - air temperature distribution

4-way discharge, air flow direction: down



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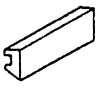
8 Accessories

8-1 Standard accessories

Name	① Drain hose	② Clamp	③ Washer for hanging bracket	④ Clamp
Quantity	1 pc.	1 pc.	8 pcs.	6 pcs.
Shape				

Name	⑤ Washer fixing plate	Insulation for fitting	⑧ Sealing pad	⑫ Elbow
Quantity	4 pcs.	1 of each	1 pc.	1 pc.
Shape		⑧ For gas pipe ⑦ For liquid pipe		

Name	⑩ Paper pattern for installation	⑪ Blocking pad	⑫ Retainer for blocking pad	⑬ Retainer for blocking pad
Quantity	1 pc.	2 pcs.	2 pcs.	2 pcs.
Shape	Also used as packing material			

Name	⑭ Center retainer for blocking pad	
Quantity	2 pcs.	
Shape		(Other) ● Installation manual ● Operation manual

8 Accessories

8-2 Optional accessories

Name of option			FUQ-BUV1B		
			71	100	125
Sealing member of air discharge outlet			KDBHJ49F80	KDBHJ49F140	
Decoration panel for air discharge			KDBTJ49F80	KDBTJ49F140	
Vertical flap kit			KDGJ49F80	KDGJ49F140	
Replacement long-life filter			KAFJ495F140		
L connection piping kit			KHFP49M140		
Remote control	Wired type		BRC1D527		
	Infrared type	Heat pump	BRC7C528W		
		Cooling only	BRC7C529W		
Central remote control			DCS302C51		
Unified ON/OFF control			DCS301B51		
Schedule timer			DST301B51		
Wiring adapter for electrical appendices ※1			KRP4A53		
Interface adapter for Sky Air series			DTA112B51		
Installation box for adapter PCB			KRP1B97		
Remote sensor			KRCS01-1		
Connector for forced on, forced off			EKRORO		
Electrical box with earth terminal (3 blocks)			KJB311A		
Electrical box with earth terminal (2 blocks)			KJB212A		

Note *1; installation box for adaptor PCB (KRP1B97) is necessary.

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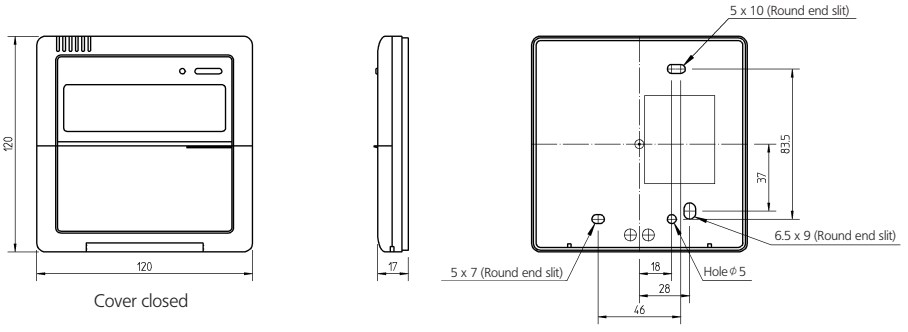
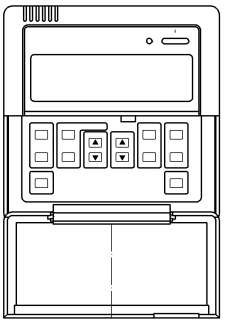
9 Control systems

9-1 Wired remote control

BRC1D527



Cover closed



Cover open

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10 Safety device settings

FUQ71-100-125BUV1B

Model	Safety devices	FUQ71BUV1B	FUQ100BUV1B	FUQ125BUV1B
FUQ-BUV1B	Fuse	–	–	–
	Fan motor thermal fuse (°C)	–	–	–
	Fan motor thermal protector (°C)	Off: 130±5	Off: 130±5	Off: 130±5

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11 Installation

Names and functions of parts

ⓐ Indoor unit
ⓑ Outdoor unit
ⓒ Infrared remote control
ⓓ Inlet air
ⓔ Discharged air
ⓕ Air outlet
ⓖ Air flow flap (at air outlet)
ⓗ Refrigerant piping, connection electric wire
ⓘ Drain pipe
ⓙ Air inlet
The built-in air filter removes dust and dirt.
ⓚ Ground wire
Wire to ground from the outdoor unit to prevent electrical shocks.
Ⓛ Drain pumping out device (built-in)
Drains water removed from the room during cooling